

OCCUPATIONAL

JANUARY 2006

HEALTH & SAFETY

CANCER AND THE WORKPLACE



INDUSTRY-DEVELOPED BEST PRACTICES ENHANCE SAFETY

by Robin Kotyk

Alberta companies and industries have been developing best practices in order to ensure compliance with the minimum standards of the recently revised Occupational Health and Safety Act, Regulation and Code. They are also finding that the process of developing best practices provides increased understanding of the legislation and how it applies to specific work sites.

Under the Code, Part 2, a written hazard assessment must first be completed to identify existing and potential hazards in the workplace. Then these hazards must be communicated to the affected workers and steps taken to eliminate or control them.

Best safety practices that are developed and accepted by those who work in the industry become the recognized standard for that industry.

Companies have addressed this requirement by developing and implementing health and safety management systems (commonly known as health and safety programs). The management systems include company-specific measures for dealing with hazards, that is, safe work practices and safe job procedures based on the identified hazards. These company-specific programs, which are stand-alone measures, play a leading and important role in promoting the health and safety of the workforce.

Best practices outline methods of doing a job or task safely. Industry is "the expert" in regard to the work it does; best safety practices that are developed and accepted by those who work in the industry become the recognized standard for that industry.

The Alberta Construction Safety Association is currently working with industry committees to develop best practices. Two booklets have already been published (*Siding and Eavestroughing Best Practices* and *Framing Best Practices*) and work is progressing on best practices for flat roofing, sloped roofing and residential trenching.

Other construction-related industries have expressed interest in following this process, and the ACSA is willing

to help wherever they can. The ACSA process involves the following steps:

1. Industry identifies a need for a best practice and submits a request.
2. The Alberta Construction Safety Association reviews the submission and establishes a committee, if appropriate.
3. The ACSA Board of Directors gives its approval to proceed.
4. Industry and the ACSA identify committee members. Committee members include representatives from the industry, the ACSA, Alberta Human Resources and Employment and other interested parties, for example, suppliers.
5. The ACSA selects an industry representative to serve as the committee chair.
6. The committee meets regularly to produce a draft of the best practice.
7. The ACSA distributes the draft to industry members and the ACSA Board of Directors for comments.
8. The committee reviews the comments and signs off on a final draft.
9. The ACSA arranges for printing and distributes the finished product to industry members and other interested parties.

This approach of working together is producing excellent results for all concerned. Involving a company in the development of best practices changes the safety culture of both the company and the industry as whole. Companies will adopt a best practice if they are involved in the process – if the best practice is developed "by industry for industry."

For more information, contact the Alberta Construction Association offices in Edmonton, phone 1-800-661-2272, or Calgary, phone 1-800-661-6090.

Robin Kotyk is a manager in the Edmonton office of the Alberta Construction Safety Association.

OCCUPATIONAL HEALTH & SAFETY

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Membership on the Occupational Health & Safety magazine advisory board is open to any resident of Alberta with knowledge and experience of health and safety, and an interest in communicating health and safety information to the public. Any individual interested in joining the Board should submit a letter of application to the managing editor of the magazine. The Board meets three times a year in Edmonton. Board members do not receive remuneration or reimbursement for expenses related to meetings.

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NAIT LAUNCHES ALBERTA'S FIRST OCCUPATIONAL HEALTH AND SAFETY DIPLOMA PROGRAM

Students will be prepared to step into careers as safety coordinators and safety managers.

Starting this month, the Northern Alberta Institute of Technology will begin offering a new occupational health and safety diploma program designed to train students for careers as safety coordinators and safety managers. Developed with the direct assistance of a large group of industry peers, this diploma program is the first of its kind in the province.

"NAIT's new Occupational Health and Safety Program is an important and positive step toward safer workplaces across the province," says Minister of Alberta Human Resources and Employment Mike Cardinal. "This will continue to help position Alberta as a safety leader in North America."

NAIT will launch the program with an innovative course delivery system that should meet the needs of a wide range of students. Classes will be scheduled at multiple times during a given semester, allowing students to build their course timetables to suit their own needs. Graduates will receive a Diploma in Occupational Health & Safety, and they will meet the education requirements for the Canadian Registered Safety Professional certification, currently the most recognized designation available for safety professionals in Canada.

"This is a tremendous new venture for us," says NAIT Dean of Business Development Jeffrey Sundquist. "It's a direct response to industry demand, and we expect our graduates to be successful."



Photo courtesy of NAIT

Students will gain solid skills in the management of a full scope of hazards, as well as an understanding of workplace standards and codes. This technical knowledge base will be complemented by training in communications and management, including the development and deployment of corporate OH&S programs, investigation and incident management.

To accommodate the upgrading needs of safety professionals at work in various industries, customized OH&S training will also be made available to corporate clients.

For more information, contact Monique Mackay at (780) 378-5034 or moniquem@nait.ca.

Note: The University of Alberta Faculty of Extension offers an OH&S certificate. For information go to www.extension.ualberta.ca/appliedsciences/prog_ohs.aspx.

NEW ALBERTA OCCUPATIONAL SAFETY AUDITORS ASSOCIATION

The Alberta Occupational Safety Auditors Association was incorporated in the province of Alberta in September 2005. Dennis Bolger was named acting chairman at an inaugural meeting held on October 31, and the first General Membership Meeting is scheduled for March 24, 2006, in Calgary. The agenda for the general meeting will include goals, objectives and bylaws of the association, and a strategic plan.

The primary objective of this not-for-profit society is to promote the safety auditing profession across Canada by developing professional, competent and ethical auditors. The association will provide services to members so as to ensure ongoing professional development, as well as a meeting place for health, safety and environmental

professionals that focuses solely on the auditing discipline.

The founders of this association believe that as the Partnerships program continues to grow in Western Canada, there will be a corresponding growth in the auditing profession.

The association also hopes to establish a national health and safety auditing association that would be parallel to, and work with, the Canadian Environmental Auditing Association in Canada. Discussions with the CEAA about creating a health and safety auditor certification have already commenced.

For more information, contact Dennis Bolger, bolger@benchmarksafety.com.

PASSPORT TO SAFETY

Young Canadians are being challenged to take the Passport to Safety "test," which is based on learning outcomes developed by health and safety curriculum experts from most provinces and territories. Those who pass the test are awarded a transcript they can use to demonstrate their basic awareness of workplace health and safety practices. Participants, who are 24 years of age or younger, are then encouraged to take other courses that help people manage risk, for example, first aid, water safety or snowmobile safety.

For more information about this program, which is sponsored by the Safe Communities Foundation of Canada, visit www.passporttosafety.com or send an e-mail to info@passporttosafety.com.

WORK PLAYS! A DRAMATIC APPROACH TO SAVING YOUNG LIVES

The 14,000 high school students and teachers who have already seen WORK PLAYS! have given it rave reviews. This witty and lively 45-minute play about safety issues facing teens in the workplace is touring the province in March 2006. To book a free performance and follow-up group discussion, or to sponsor a performance in your local school, contact the Alberta Workers' Health Care Centre, phone (780) 486-9009, info@workershealthcentre.ca.

For more information, go to www.workershealthcentre.ca/programmes/schools.php.

OH&S MAGAZINE'S NEW LOOK

The new year brings a new look. As time moves on, so do graphic standards – thus a need to update the design of OH&S. The cover is cleaner, uncluttered, more direct. The stories and resources are designed with new typography for an easier read. The interior spot colour is used sparingly to emphasize key information. We hope you appreciate the new look as much as we do, and we look forward to your comments.

RESEARCH PROJECT ON ETHICAL LEADERSHIP

An Adjunct Scientist at the Institute for Work & Health in Toronto, Dr. Dov Zohar is among the first to explore ethical leadership in the context of workplace health and safety. Dr. Zohar, currently a visiting professor with the Gallup Leadership Institute at the University of Nebraska, has shown that in every organization some supervisors in middle or lower-level management positions exhibit greater moral sensitivity than others. Even within a single company, some supervisors are much more likely than others to promote safe worker behaviours.

"I believe that making the moral case for safety offers no lesser potential than making the business case for it," Zohar says.

For more information, contact kchapeskie@iwh.on.ca.

NATIONAL SURVEY OF NURSES' WORKING CONDITIONS

To obtain information about nurses' working conditions and well-being, the Canadian Institute for Health Information, Statistics Canada and Health Canada are jointly conducting a national phone survey. Interviewees will be made up of a random sample of licensed practical nurses, registered nurses and registered psychiatric nurses. Topics to be addressed include absenteeism, job satisfaction, hours of work, stress, depression and exposure to risk.

The researchers hope to gather data that will contribute to workplace health strategies and government policies related to nursing.

For more information about the survey, go to www.cihi.ca/nswhn.

RAISING THE SAFETY BAR IN ALBERTA MINES

by Cheryl Mahaffy

Two siblings head off to work. One has a job in a mine, the other sells suits. Which of the two is more likely to suffer injuries at work?

In Alberta, the retail clerk faces more than twice the risk of lost time injury, according to Workers' Compensation Board-Alberta statistics. The mining industry tallied 1.1 lost time claims for every 100 full-time jobs in 2004, while retail rang in at 2.5. In fact, the mining and petroleum development sector had the best safety rating in the province last year, significantly better than the all-industry average of 2.6 and four times better than roofing.

A surprisingly positive record

Mining's positive record catches many by surprise, says Gord Winkel, vice-president of bitumen for Syncrude's Aurora project, who has criss-crossed the country promoting safety as a distinguished lecturer for the Canadian Institute of Mining, Metallurgy and Petroleum. "The mining industry has done some really good work in safety, but I think in some respects that's a best kept secret. Not many people associate safety leadership with mining."

Not that mining has always been a beacon of safety, Winkel readily admits. "When I first became a manager back in the late 1980s, Syncrude's lost time incidents were a factor of seven higher than they are now. So there's been quite a change."

Yet the perception of danger persists, says Mick Smith, manager of mine safety for Suncor Energy Inc. "It's time people realized mining is not the occupation my father worked in during the '50s, shovelling coal and ending up with black lung at 34 years old."

Even before 2002, when Alberta committed to reducing workplace injuries to 2.0 per 100 full-time jobs, mining had exceeded that goal, says Alberta Human Resources and Employment's Don Hindy, mines health and safety program coordinator.

"The mining industry has done some really good work in safety, but in some respects that's a best kept secret."

Still, Hindy is loath to drop words such as "dangerous" and "hazardous" from the mining vocabulary. "Mining by nature is defined as a hazardous working environment, and it does still expose workers to major dangers," he says, ticking off such realities as confined areas, high pitwalls, 12-hour shifts and icy conditions. Hindy also notes the swift advance of technology, which puts crews in charge of complex and gigantic equipment their managers have never operated.

"It's a credit to the companies and the workers in mining that, despite those hazards, the industry has improved year over year and is one of our safest," Hindy says.

Alberta miners also stand up well in national safety comparisons, with mines such as Luscar Ltd.'s Genesee, Sheerness and Paintearth frequently winning the prestigious John T. Ryan Safety Trophy for the nation's lowest incident frequency in coal mining. "At Genesee, they've won so often that they've built a cabinet just for displaying the trophy," Hindy says.

To be fair, the fact that Alberta has only one underground mine is a significant factor in its national standing. Surface mining by nature has a much

lower hazard exposure, and incidents that do occur usually involve just one or two people. A major incident underground, on the other hand, could result in numerous injuries.

Yet there's no denying that mining in Alberta is safer than ever before.

Secrets of success

What's the sector's secret? Hindy laughs, recalling his attempts to answer that question by picking brains at the Genesee and Sheerness mines. Genesee credited its collaborative non-union workforce; Sheerness credited collaboration to its strong union. "The bottom line is not whether a shop is union or non-union. The bottom line



Oil Sands truck and operator / Photo courtesy of SUNCOR

is cooperation. Where management is willing to listen and workers are willing to cooperate, there's a much greater chance of success."

Courageous leaders are also part of it, says Anne Marie Toutant, mining vice-president at Suncor Energy Inc. "These individuals have the courage to insist that tools such as field level risk assessment and near miss reporting become part of our culture, every day. They truly care about safety, demonstrate safe behaviour and celebrate safety success."

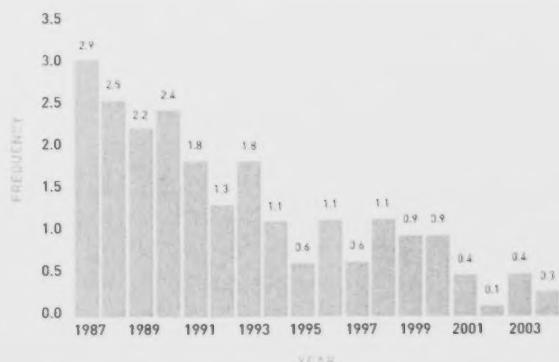
The Alberta Mine Safety Association also deserves credit for raising the safety bar, observers say. Launched in 1983, the association involves safety leaders from most Alberta mines in tracking safety, sharing strategies, training supervisors, lobbying for safe equipment and responding to legislative initiatives.

AMSA exerts a positive form of peer pressure, says Suncor's Smith, who serves as treasurer of the association. "When most mines incorporate an improvement, that becomes acceptable practice in the industry – the others have to race to catch up." The association has developed its own statistical framework, which shows lost time incidents dropping from 2.9 in 1987 to 0.32 in 2004.

And the Alberta government spurs improvement, operators say. "We've had great participation by people like Don Hindy, who has proactively sent his inspectors and himself right into the field to work with us and with equipment vendors," Winkel says. "It's an approach of mutual respect. When something's not right, they tell us. When we need support, they're there."

Since all the mines inspectors are engineers, they can provide on-the-spot expertise that could otherwise take months to obtain. "Our approach has been to enlist the power that can influence the outcome," says Hindy, who has also participated on a workplace health and safety task force aimed at transferring proven techniques to poorly performing sectors.

ALBERTA MINE SAFETY ASSOCIATION
LTA FREQUENCY COMPARISON (1987 - SEP 30, 2004)



Graph courtesy of AMSA Statistician Ann Balak

What's next?

Safety improvements often happen in steps, Hindy says, and the mining industry appears to have reached a low-level plateau following the reductions of recent years. "I think we have extracted from older safety systems most of the benefits they can deliver to the mining industry, and now we have to implement some kind of new mining-specific philosophy."

Like others in the industry, Albion Sands is turning to behavioural safety techniques, says Chief Operating Officer Chris Jones, whose youthful workforce has tallied 4.7 million hours without a lost time injury since the firm launched three years ago. "Instead of instruction, we ask a question: 'Did you have a safe day yesterday?' If yes, what made it so? If no, what can we do differently today?" Overall, the responses are open and truthful, he adds. "When we hear a 'no,' there's passion behind it. With a 'yes,' a lot of times there's recognition for somebody else who went above and beyond."

When unsafe habits surface, Albion calls a complete halt, Jones says. "Stopping work and resetting is a great way to focus." Recalling a recent halt, he adds. "We went eyeball to eyeball with each person and got a commitment to work safer. It had the desired effect."

In today's mining environment, incidents often relate to behaviour, not conditions, Jones notes. "It's how we react to conditions at work that makes the difference. Work environments like the mines I've been a part of or led are far safer than being a bank teller in some cities."

Cheryl Mahaffy, an Edmonton writer, appears in two anthologies launched in the fall of 2005: Edmonton on Location and Outside of Ordinary.

RESOURCES

WEB LINKS

- www.wmea.net/Technical%20Papers/PDFs/Alberta%20Mines%20-%20WMEA%20June%202005.pdf
Presentation on mine safety and the Alberta Worksafe program [WCB]
- www.msha.on.ca/news.aspx
Mines and Aggregates Safety and Health Association [Ontario]
- www.em.gov.bc.ca/Mining/Healsafe/
Mine Health and Safety [B.C. government]
- www.msha.gov/
Mine safety [U.S.]



ALBERTA JUSTICE'S NEW REGULATORY UNIT

by Tamara Trull

In November 2005 Alberta Justice formed the Regulatory Prosecutions Office, with Vaughan Hartigan serving as the new Chief Crown Prosecutor of regulatory prosecutions. Mr. Hartigan has a long history of prosecuting serious crimes, including regulatory offences.

Regulatory prosecutions were originally handled by prosecutors from the Criminal Crown Prosecutor's office who usually dealt with only two or three regulatory files over the course of their career. With each file, they had to familiarize themselves with the relevant legislation and regulations amidst a demanding schedule of prosecuting Criminal Code offences.

Then in 2002 Alberta Justice arranged with various government departments to have designated crown prosecutors assigned to prosecuting regulatory offences exclusively. Criminal crown prosecutors were placed in these positions on a two-year rotational basis. Under this system, the files were ably and professionally prosecuted. However, just when the prosecutors had become completely familiar with the legislation, issues and objectives of the investigating bodies, their rotation period was nearing expiry.

Mr. Hartigan has hired a team of seven elite prosecutors from all over Alberta to join him in the new downtown Edmonton office. This dynamic team will devote their careers to the prosecution of regulatory offences. The team will be able to share their regulatory experience, interests and knowledge, which will result in more efficient and effective regulatory prosecutions.

The Regulatory Prosecutions Office currently has prosecutors specializing in the following areas: Occupational Health and Safety and Employment Standards, Environment, Gaming and Liquor, Forestry, Worker's Compensation Board and Government Services. Discussions are ongoing with other government departments, so the addition of other prosecutors dedicated to a specific field is a distinct possibility.

This change marks a significant step forward in the area of regulatory law in Alberta.

To suggest topics for future columns, please send a message to Tamara.Trull@gov.ab.ca or Brian.Caruk@gov.ab.ca.

Tamara Trull is a Crown Prosecutor at Alberta Justice.

PARTNERSHIPS NEWS

NEW PARTNERS IN HEALTH AND SAFETY

Welcome to four new Partners in Health and Safety:

- Alberta Building Trades Council
- Bird Construction Company Limited
- Flint Energy Services Ltd.
- Millar Western Forest Products Ltd.

Representatives of Bird Construction, Flint Energy Services and Millar Western Forest Products received their Partner certificates at the 2005 Partner General Meeting on October 12, 2005.

CERTIFYING PARTNERS CHANGE NAMES

The Petroleum Industry Training Service and the Canadian Petroleum Safety Council have combined resources, talents and expertise to form a new organization called **Enform (Canada)**.

The Alberta Long Term Care Association recently became an industry-funded safety association and changed its name to the **Continuing Care Safety Association**.

THINKING OF GETTING YOUR COR IN 2006? READ THIS...

To increase employer participation in the Partnerships in Health and Safety program, the Workers' Compensation Board-Alberta has made two changes. Effective immediately, **first-time** Certificate of Recognition holders will receive a minimum financial rebate of 10 per cent for the first year of the program. In addition, they will receive the rebate in the year they achieve their COR (these rebates were previously paid in May of the following year).

For more information, visit www.wcb.ab.ca or contact WCB at 1-866-922-9221 (toll free from anywhere in Alberta) or contactcentre@wcb.ab.ca.

PARTNER GENERAL MEETING

The 2005 Partner General Meeting, held in Calgary on October 12, attracted 120 delegates representing Partners and Certifying Partners from across the province. DataSafe Recovery Services' employee Danielle Clarkson, Alberta's Youth Health and Safety Ambassador and moderator for the general meeting, introduced keynote speaker Vaughn Webb. Mr. Webb delivered a riveting presentation about a workplace incident that resulted in life-altering injuries and how this event has affected his life.

Framed certificates were presented to DataSafe Recovery Services Ltd. and the Small Employers and Producers Association of Canada, in recognition of their support for provincial and national youth health and safety advisory committees.

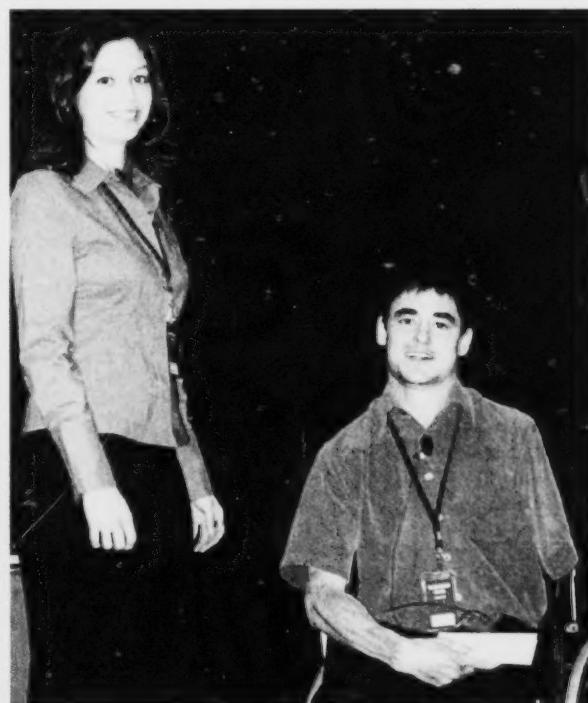


Partnerships in Health and Safety is a non-regulatory, province-wide injury prevention program sponsored cooperatively by government, labour and industry. The program offers:

- tools to implement a health and safety management system
- guidance in applying for a Certificate of Recognition (COR)
- potential for premium refunds from the Workers' Compensation Board-Alberta

For more information, call 1-866-415-8690 toll free in Alberta or 415-8690 in Edmonton and area. Or visit www.whs.gov.ab.ca/partners.

Presentations were given by Alberta government staff as well as the Propane Gas Training Institute. Discussions at the working sessions in the afternoon focused on ways to keep employees motivated and involved in their organization's health and safety management system, and on whether to maintain the Certificate of Recognition minimum standard or add a level of excellence.



Danielle Clarkson and Vaughn Webb / Photo courtesy of Partnerships

BEING WELL PREPARED FOR EMERGENCIES

by Bill Corbett

Wrenching disasters like Hurricane Katrina and the Pakistan earthquake could never happen here in Alberta. Or so we like to think. Still, the historic levels of flooding in southern Alberta last June have made even the most blasé among us realize that we too are vulnerable.

Natural and manmade disasters can, and do, occur in this province. On average, 13 to 15 municipal states of emergency are declared each year and that number swelled to more than 50 in 2005 with the widespread flooding. Besides flooding, emergencies include forest fires, tornadoes, train derailments (for example, the recent chemical spill at Lake Wabamun, west of Edmonton), airplane crashes or overturned trucks carrying hazardous goods. Alberta is also by no means immune to ice storms, landslides, prolonged power outages, sour gas releases, disease epidemics or acts of terrorism. And don't forget we're only five years removed from the Y2K scare.

Staying on our toes

Fortunately, there are people at all levels of government whose job involves being prepared for all the types, and intensities, of calamity that could befall us. "A lot of citizens are complacent about what can go wrong, and if nothing happens for a long time, their preparedness starts to fall off," says John Conley of the Calgary Fire Department, which oversees Calgary Disaster Services. "But as emergency preparedness professionals, we can't be complacent."

"You have to be prepared for everything, including the possibility of terrorism," adds Mike Kluttig, regional spokesperson for Public Safety and Emergency Preparedness Canada. "We take an all-hazards approach to planning for emergencies."

A three-pronged, coordinated approach

In Canada, preparing for and responding to emergencies takes a three-pronged approach. As those closest to the scene, municipalities are the first responders to any emergencies and, in Alberta, are empowered to declare a local state of emergency. (A provincial state of emergency has never been declared.) If municipalities require additional resources or expertise, they can seek help from the provincial government, which in turn can request assistance from the federal government.

"We play a supporting role," says Dave Redman, executive director of Emergency Management Alberta, a branch of Alberta Municipal Affairs that oversees the province's preparation for and response to disasters. "We never take charge, unless it is an overarching emergency that needs to be coordinated on a large scale or unless the municipal organization is incapacitated. For more than five decades, people at the municipal level have been well equipped and trained to deal with these situations."

"A critical part of emergency response is coordination," says Kluttig. "Our department is there to take a leadership role in coordinating with federal departments during emergencies and providing any necessary support to the province. In preparation, we often meet with Emergency Management Alberta to discuss procedures, and we have participated together in an emergency exercise."

Fortunately, there are people at all levels of government whose job involves being prepared for all the types, and intensities, of calamity that could befall us.

Emergency management is often a much more integrated effort than the hierarchical structure would suggest. During the floods across the prairies this summer, for example, the federal response included stationing a liaison officer in the provincial emergency operations centre in Alberta and providing emergency stockpiles of beds, stretchers and blankets in Saskatchewan.

Meanwhile, provincial officials were closely monitoring weather forecasts and river flows several days before the floods. They relayed that information to local emergency operations centres, which were dealing directly with the flood and evacuating affected residents. As the flood waters started to rise, the provincial emergency operations centre was activated around the clock, with various experts assessing the risk of everything from stranded livestock to potential impacts on power distribution and oil and gas operations. And when rising river levels threatened Medicine Hat, idle fire attack teams were brought in to erect sandbag walls and shore up dikes. Once the floodwaters receded, the federal and provincial governments were expected to provide funding for the approximately \$137 million in non-insurable damages.



Behind the scenes: planning, training, setting standards and evaluating

For all three levels of emergency response teams, springing into action when disaster strikes is only the tip of the iceberg. "Ninety per cent of what we do happens prior to any emergency," says Redman. "Most of our staff spends every day working on preparedness and mitigation, in developing and updating emergency plans." Emergency Management Alberta plays a vital behind-the-scenes role in coordinating a province-wide program. Emergency

A provincial state of emergency has never been declared.

Management Alberta's roots go back to 1951, when a provincial civil defense agency was formed. The subsequent Disaster Services Alberta was renamed Emergency Management Alberta in 2002 to reflect changes that included strengthened counter-terrorism measures in the wake of the 9/11 attacks.

Emergency Management Alberta oversees officers – coordinating emergency plans and developing training programs – in all 23 Alberta government departments, 10 of which also have departmental crisis management officers and 17 of which have departmental consequence management officers. As well, Emergency Management Alberta

has seven district officers and two First Nation officers, and it works closely with industry associations and agencies such as the Alberta Energy and Utilities Board. Every year, Emergency Management Alberta officers visit all 314 Alberta municipalities to help them review their emergency plans and facilitate training exercises.

"From an occupational health and safety standpoint, we ensure standards are met for our operations and that our people are trained for any hazards they might be exposed to – whether they're our district officers, internal staff or staff of external agencies," says Redman. "We know our municipalities do the same."

After every significant emergency – whether it's in Alberta or elsewhere – Emergency Management Alberta officials review the incident to see what lessons can be learned and what improvements made. "Hurricane Katrina reinforced for us the requirement that all orders of

government be very clear on what their responsibilities are," says Redman. "We're doing influenza pandemic planning right now, and we need to know exactly what each order of government will do if a pandemic strikes."

For more information

Emergency Management Alberta:
www.municipalaffairs.gov.ab.ca/ema_index.htm

(This site provides disaster updates.)

Public Safety and Emergency Preparedness Canada:
www.psepc.gc.ca/

Occupational Health and Safety Code.
Part 7 deals with emergency preparedness and response.

Bill Corbett is a Calgary writer. His latest book, The 11,000ers of the Canadian Rockies, received the Canadian Rockies Award at the 2005 Banff Mountain Book Festival.

RESOURCES

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 18

Emergency Preparedness/Incident Prevention/Crisis Management [Video]

Guidelines for developing an emergency plan, including what departments and facilities to contact for assistance, how to announce an emergency and conduct an evacuation, how to handle the media and much more. [FVC 250]

CANCER AND THE WORKPLACE

by Juliet Kershaw

It's hard to ignore the headline. "Cancer tidal wave looms over Canada" jumps off the page of the newspaper, stirring up fear and anxiety. When I read beyond the headline in this *Edmonton Journal* article (October 22, 2005), I'm confronted by grim statistics. Despite spectacular medical breakthroughs in diagnosing and treating cancer, the cancer rate is increasing in Canada's aging and growing population.

The numbers glaringly illustrate a trend that cancer experts expect will accelerate over the next three decades: "A projected 149,000 Canadians will be diagnosed with cancer this year, 3,500 more than last year. As well, 69,500 Canadians will die of the disease, 1,200 more than last year," reads the article. The possibility of developing cancer in your lifetime if you are male is 44 per cent, if female, 38 per cent.

A blueprint for action on a national cancer strategy reports that cancer takes the lives of more people in Canada than strokes, respiratory disease, pneumonia, diabetes, liver diseases and HIV/AIDS combined. In the next three decades, the *Journal* article also reports, "productivity throughout the Canadian workforce will be severely hampered. An estimated 2.4 million Canadian workers will get cancer and 872,000 of them will die of it." This translates to \$540 billion in lost wage-based productivity.

While governments wrestle to address the staggering costs predicted as a result of the epidemic of new cases, individuals can take action. Cancer experts are united in promoting prevention as the best way of fighting the disease, and there are many effective measures that lower the risk of developing cancer. Individuals can take responsibility for minimizing the known risks associated with tobacco use, lack of exercise, unhealthy diet, obesity and overexposure to the sun. And hazard assessments of work sites and health assessments of workers, along with adequate control of hazardous substances, can go a long way toward protecting workers.

A new resource for the workplace

The Alberta Cancer Board has joined forces with Alberta Human Resources and Employment to inform workers and employers through its publication, *Cancer and the Workplace*. The plain language booklet provides a general overview of cancer, as well as information and guidelines to help prevent cancer in the workplace. It is designed to assist occupational health professionals when addressing requests for information about carcinogens, controls and risk factors related to work.

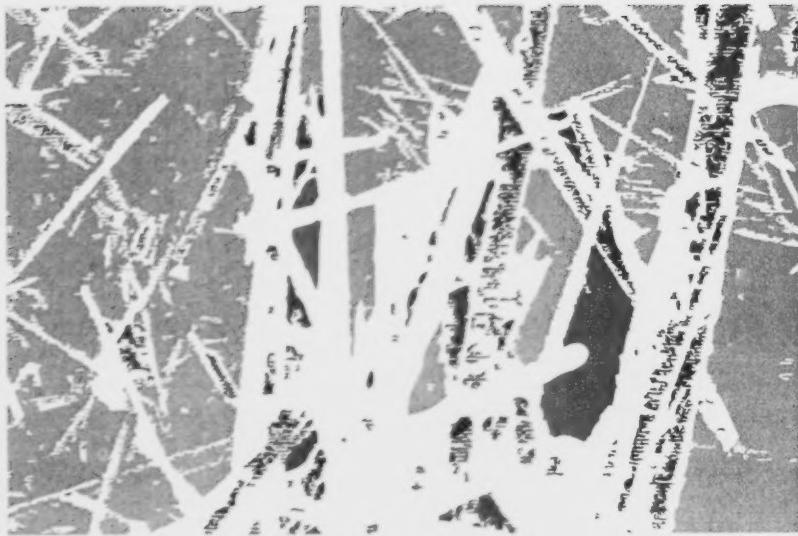
The good news is that, with conscientious effort, the risks presented by carcinogens at work sites can be minimized or eliminated.

The booklet is the first tangible resource produced by the Alberta Cancer Board's new occupational and environmental cancer prevention program. Munira Lalji, coordinator of the program, aims to "initiate discussion and more action on this topic."

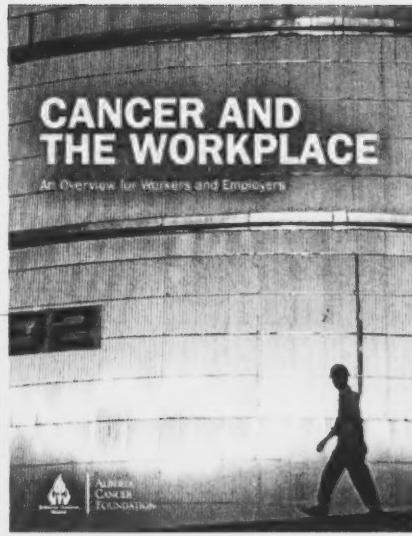
The information in this publication is clear and useful, and its message is frank: most people have some control over their risk for developing cancer. Most noteworthy is the encouraging message delivered to workers, that "occupational cancer can be prevented by removing or reducing exposures to probable and known carcinogens." Even if you work in an environment where you might be exposed to carcinogenic substances, if the right controls are in place, risks can be minimized.

Taking charge

The bottom line is that employers are legally responsible for determining what substances or processes at their work sites are carcinogenic, and for taking steps to eliminate or control



Microscopic illustration of asbestos thread



Alberta Cancer Board booklet

workers' exposure to those substances based on occupational exposure limits. Employers are encouraged to substitute non-carcinogenic materials. If this is not possible, they are legally bound to put in place engineering or administrative controls and, additionally, to require the use of personal protective equipment.

Unfortunately, many employers and workers still believe that using personal protective equipment provides sufficient protection against exposure to carcinogens. This is not the case. Alberta Human Resources and Employment considers personal protective equipment to be an additional protection, particularly in industrial settings where exposure levels to carcinogenic substances are known to be hazardous.

Lalji observes that some workers may feel they have little control over their environments, and may feel powerless to change things. They may not speak up about their health concerns for fear of reprisals or even of losing their jobs.

But workers are starting to get more involved in protecting their health at work. Lalji says, "A lot of workers are doing their own research into the

chemicals they are working with. They may decide to use the government as a resource, and consult with occupational health nurses, physicians or committees on-site. Workers may also want to pay attention to the substances they work with and keep track of them, when they use them, and for how long."

Complicating factors

Taking preventive measures is a necessary first step, but understanding the complexity of the risk factors can also help people make wiser decisions.

Look at the risk factors for developing cancer (see sidebar). How do you isolate those factors? The same lung cancer can be caused by smoking or by exposure to asbestos, for instance. A worker may receive no exposure to known carcinogens at work but if she smokes or is exposed to second-hand smoke in the workplace or outside of it, her risk of cancer is increased. So much depends on lifestyle as well as work-site influences. "Very few cancers can be attributed to certain causes, but workplace chemicals, tobacco use and sun exposure are some exceptions," says Lalji.

Then there's the "additive" effect, when exposure to a combination of risk factors (smoking and asbestos exposure, for example) puts workers exposed to both carcinogenic agents at much greater risk than if they are exposed to one or the other alone. While this effect is known, scientists have yet to discover how multiple agents work together to increase the risk of developing cancer.

Also, there is often a significant time lapse between exposure and diagnosis. Exposure to benzene in your twenties may result in a cancer that appears only 20 years later, a common latency period whatever the cancer-causing agent might have been. Furthermore, not everyone who is exposed to carcinogens will develop cancer.

Today, statistical analysis of the general population suggests that occupational exposures account for approximately eight per cent of cancer cases in Canada; however, this estimate may be low. "Future research may help us to better understand the effects of long-term exposure to minimal levels, and the effects of exposure to multiple carcinogens," says Lalji.

The good news is that, with conscientious effort, the risks presented by carcinogens at work sites can be minimized or eliminated. We can only hope that with accurate information and greater awareness provided through sources like *Cancer and the Workplace*, employers and workers will be in a good position to respond to prevention messages.

For more information

Cancer and the Workplace, published by the Alberta Cancer Board, is available online at www.cancerboard.ab.ca/cancer/cancer_online.html. Or call (403) 355-3270.

Occupational Health and Safety Code. Part 4 relates to chemical hazards, biological hazards and harmful substances. Schedule 1, Table 2 provides the occupational exposure limits.

Juliet Kershaw is an Edmonton-based writer and editor and a former editor of this magazine.

RESOURCES

WEB LINKS

www.cancerboard.ab.ca/cancer/cancer_environmental.html
Alberta Cancer Board
www.cancer.ca/ccs/internet/standard/0,3182,3172_335253__langId-en,00.html
Canadian Cancer Society
www.osha-slc.gov/SLTC/carcinogens/
U.S. Department of Labor, Occupational Safety & Health Administration

IN THE ALBERTA GOVERNMENT LIBRARY - LABOUR BUILDING

For contact information, see page 18.

Chemical Handling Safety: Basic Principles [Video]

Chances are, your work brings you in contact with chemicals and chemical processes. As dangerous as some of these chemicals are, you can handle them safely by knowing what you are working with, how to handle them and what to do in an emergency. [VC 0388]

RISK FACTORS FOR CANCER

Most cancer deaths are related to tobacco, inactive lifestyle, obesity and diet.

Risk factors for cancer include:

- tobacco use
- a diet low in vegetables and fruits
- inactive lifestyle
- a body mass index of 25 or higher
- too much exposure to ultraviolet radiation, including the sun/UV rays
- exposure to cancer-causing agents in the workplace and general environment
- personal characteristics such as age, gender and race
- a family history of cancer.

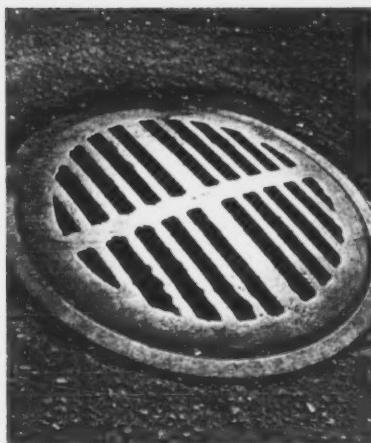
Occupational carcinogens are carcinogens workers may be exposed to as a result of work activities. Workers in certain industries are more at risk than the general population. Carcinogens can be chemical (e.g., benzene), physical (e.g., ionizing radiation) or biological (e.g., Hepatitis C).

Carcinogens can enter the body through:

- inhalation (breathing in gases, dust or vapours)
- absorption through the skin
- ingestion with food
- direct exposure to radiation.

Source:

Cancer and the Workplace
[Alberta Cancer Board, 2005]



DETERMINING THE SIZE OF AN ACCESS OPENING

by Ray Cislo

The question was simple. How big should the opening in a structure be to allow a person to pass through it?

My immediate response was to ask more questions. Who will pass through the hole? What type of clothing or specialized equipment will the person be wearing? Is the opening vertical or horizontal?

Ultimately, the answer to the question came from anthropometry, a fancy word for the part of ergonomics that deals with body size and physical abilities such as strength. Because people come in all shapes and sizes, the products – and openings – they use have to be designed to suit their physical characteristics and abilities. This principle applies to something as simple as the shape and softness of the grip on a pen, or as complex as the design of a car.

Scientists and ergonomists have measured the body dimensions of thousands of people, both male and female, and of different age groups and nationalities, in order to create anthropometric tables. These tables allow designers to create products – including access openings – that meet the needs of the people who use them.

If access openings are designed for a person of average height and width, some people will have a difficult time getting through them. The opening must therefore be designed to suit the largest individual who will pass through it, that is, a male at the "tall and large" end of the measurement scale, known as the "95th percentile male." This would allow 95 per cent of all users to get through the opening.

In safety-critical situations, however, 95 per cent may not be good enough. The designer may have to go one step further and design for the "tallest and largest," or the 99th percentile male, so that 99 per cent of users can pass through the opening.

Access to work areas such as pressure vessels can be a problem. The opening may need to be large enough to allow emergency evacuation (perhaps even by two people carrying a stretcher) but at the time as small as possible so that the strength of the vessel is not affected.

If the opening will be used during winter operations, the final measurements must take into consideration that users will be wearing bulky clothing. And lastly, the dimensions have to comply with any applicable legislative requirements.

Ray Cislo, P.Eng., B.Sc.(H.K.) is a safety engineering specialist at Workplace Policy and Standards, Alberta Human Resources and Employment.

RESOURCES

WEB LINK

www.gov.ab.ca/hre/whs/publications/pdf/erg030.pdf
Good Product Design – Avoiding the Average

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 18.

Bodyspace: Anthropometry, Ergonomics and the Design of Work
by Stephen Pheasant. 2nd edition. London: Taylor & Francis, 1996.

EN Standard 547-1 Safety of Machinery - Human Body Dimensions - Part 1: Principles for Determining the Dimensions Required for Openings for Whole Body Access into Machinery

EN Standard 547-2 Safety of Machinery - Human Body Dimensions - Part 2: Principles for Determining the Dimensions Required for Access Openings

OTHER

EN Standard 547-3 Safety of Machinery - Human Body Measurements - Anthropometric Data

BREAKING THE CODE

WORKPLACE PROGRAMS AIM TO HELP MEN AT RISK

by Lee Craig

"Work well under pressure, don't admit to having any problems and hide your vulnerabilities." That's the code many men follow at work. It is often what is expected of them, and it can pervade the office, the work site or the home with shattering results.

Three years ago Rob Little's 23-year-old son died by suicide. During that first bleak period of pain, Little's doctor encouraged him to see a grief counsellor. Thankfully, Little got help. He eventually volunteered with the Men at Risk program run by the Suicide Prevention Resource Centre based in Grande Prairie, and he started to speak at his company's safety meetings. He wanted to help other men who were struggling with stress and depression and who might not ask for help.

"Many guys don't know about the help available, and they think it is unmanly to ask," says Little, a surface land manager for Talisman Energy. "My son Andy used to call it 'cowboying up.' ... It's hard for men to come forward. They don't want to let their buddies down."

Andy Little – his dad describes him as having been "born a farmer" – had the stress of running a 1700-acre farm. Signs of his depression were not recognized, and he did not seek help. This is the case with an overwhelming number of men.

The disturbing numbers

The statistics tell a disturbing story about men and depression, men and suicide. In all of Canada, about four of every five people who die by suicide are men. It is a similar situation in Alberta, where 75.2 per cent of suicide deaths in 2003 were men.

After an incident or conflict happens at work, co-workers usually know that it didn't come from nowhere. People were often just afraid to address the underlying issue.

Rob Little, who grew up in the Grande Prairie-Fairview region, explains it in a different way. "As many young men die up here from suicides as from car accidents."

Seeking solutions

The Men at Risk project, which began in 1999 in the Peace County Health Region, works with industry, trades and agriculture to increase awareness of the warning signs of stress, depression and possible suicidal behaviour. It educates employees, managers and employers about the resources available to men in the workplace and elsewhere. It also tries to dispel the stigma of mental illness.

A person under a lot of pressure can be a risk at work, says Darrell Knapp, another volunteer with Men at Risk who

has worked in the oil and gas industry for over 20 years. "Many industry jobs require a high level of concentration. If a person is distracted, that is a risk for themselves or the other people on the site."

Knapp, who works for Alliance Pipeline, says the Men at Risk project

deals with injury prevention, stress management and ways people can keep themselves and their co-workers safe.

A program inspired by Men at Risk is in development in Red Deer. Coordinator Grant Smith says, "What we are trying to do is get a cultural shift around the stigma, silence and isolation about depression and suicide."

Calgary's Copernicus Project was designed to tackle the stigma around mental health in the workplace. Although it wasn't intended to focus on men, as the other projects do, project manager Jill Armstrong says she largely works with groups of men because of the project's industry clients.

"What I hear from men is it's still very risky to expose any kind of vulnerability, especially a mental health vulnerability ... Our culture in general – and certainly



our workplace culture – supports the notion that you're either mentally healthy or you're not," says Armstrong.

"We don't talk about personal problems in the groups, but look at case studies and discuss how to handle different situations."

Participants, often managers, discuss their fear of making a situation worse if they approach someone they are concerned about. Armstrong says that after an incident or conflict happens at work, co-workers usually know that it didn't come from nowhere. People were often just afraid to address the underlying issue.

"We try to use the exercises to say, 'We see how this is going. How might that be different?' ... I ask them, 'What might be signs that indicate a mental health problem, not just a performance issue?'"

Helping whole families

When Rob Little talks about Andy – his involvement in the 4-H club and the fact that he wanted sheep for his eighth birthday and not toys, as other kids did – the love and affection are clearly apparent. His loss is profound evidence that the Men at Risk program and other similar programs are vital. These programs may help to ensure that other families don't suffer.

SUICIDE PREVENTION: HOW YOU CAN HELP

Depression is treatable. If you think someone is suffering from depression, help is available.

Suicide is just one of many harmful behaviours that can result from depression, but because of its finality, it is particularly important to take any suggestion of suicidal thoughts or actions seriously. It is not your job or your responsibility to diagnose a suicide risk, but being aware of the warning signs and knowing how to respond appropriately can save lives.

Always remain non-threatening, non-judgmental and empathic if you approach someone you suspect of having suicidal thoughts. Allow the individual to speak freely and openly. Directly asking about whether they are having suicidal thoughts does not increase their risk for attempting suicide. In fact, talking to them and trying to get them help is the best thing you can do.

If someone you know:

- threatens suicide
- talks about wanting to die
- shows changes in behaviour and appearance
- abuses drugs and/or alcohol
- deliberately injures themselves
- appears depressed, sad or withdrawn ...

You can help by:

- staying calm and listening without judgment
- letting the person talk about their feelings
- asking if the person is having suicidal thoughts
- never swearing to secrecy
- telling someone about the problem

It is in no one's best interests to keep thoughts of suicide a secret. There are places to find help:

- family, friends and relatives
- clergy, teachers and counsellors
- family doctors
- local or national crisis lines [listed in the front pages of your phone book]
- mental health services
- hospital emergency departments

Sources:

Centre for Suicide Prevention, www.suicideinfo.ca, and the Canadian Mental Health Association's Mental Health Works website, www.mentalhealthworks.ca/employers/faq/question2.asp.

WORKPLACE HEALTH & SAFETY

"What you do for this man is you change his life. You give back to the family a dad who is healthy, who is not struggling with work all the time. He comes home and he is in a good mood and he wants to go out and fish or go snowmobiling with you," says Little.

Little also talks to men who are addicted to alcohol, drugs or gambling. He points out that when a man gets help with an addiction, a whole family benefits.

"It is the whole person we are dealing with, not just the guy at work. And it makes a remarkable difference."

For more information

Men at Risk, Suicide Prevention Resource Centre, Grande Prairie:
phone (780) 539-0210, www.sp-rc.ca

Copernicus Project, Canadian Mental Health Association – Calgary Region:
phone (403) 297-1700, www.cmha.calgary.ab.ca/workplacewellness

Suicide Information and Education Services, Red Deer:
phone (403) 342-4966, www.suicidehelp.ca

Lee Craig is an Edmonton freelance writer and editor.

RESOURCES

WEB LINKS

www.ccohs.ca/oshanswers/psychosocial/stress.html
Canadian Centre for Occupational Health and Safety
<http://menanddepression.nimh.nih.gov/>
Men and Depression, U.S. National Institute of Mental Health
www.healthyplace.com/communities/depression/men_4.asp
Men with Depression
www.mayoclinic.com/invoke.cfm?id=MC00041
Men, depression and job stress, Mayo Clinic

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

For contact information, see page 18.

Videos

Working with Stress
Job stress poses a threat to the well-being of workers and organizations.
(VC 0416 or DVD 002)

Overcoming Stress
When we are under stress, things happen to our body, and this eventually affects our brain. The video outlines four steps to "inner quality management" to achieve better balance, improved health, clearer thinking ability and better productivity. (HRV 130)

Stressbusters! Ten Little Commitments to Reduce Stress
A funny and irreverent look at stress, personalities and how to make yourself happier and more productive. (HRV 246)

Contact us any time

For occupational health and safety information and assistance, or to order Workplace Health & Safety publications, phone the Contact Centre at 1-866-415-8690 (415-8690 in Edmonton and area) or visit www.whs.gov.ab.ca/expert.



Sign up for Workplace Health & Safety news

To be notified by e-mail of all new Workplace Health & Safety website postings, sign up for a FREE subscription service through www.whs.gov.ab.ca/subscribe.asp.

Alberta Government Library Labour Building Site

To review the large selection of occupational health and safety information materials available through the Alberta government, go to www.gov.ab.ca/hre/library/index.asp.

To borrow materials, either contact your local library and make your requests through the inter-library loan system or visit the Alberta Government Library:

3rd floor, 10808-99 Avenue
Edmonton, AB T5K 0G5

Library phone
(780) 427-8533

Audio-Visual Services phone
(780) 427-4671

To reach either of the above numbers toll-free in Alberta, dial 310-0000 followed by the area code and phone number.

Library fax
(780) 422-0084

Workplace Health & Safety, a program of Alberta Human Resources and Employment, falls under the jurisdiction of Minister Mike Cardinal.

WHAT IMPROVEMENTS HAVE YOU MADE AT YOUR WORKPLACE?

If you've found a solution worth sharing, please send it to ray.cislo@gov.ab.ca.

MOVING OIL DRUMS

The Problem

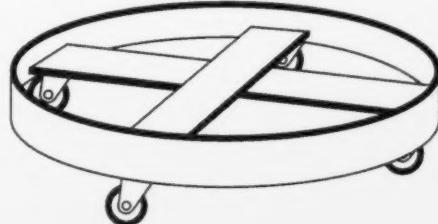
Oil-filled 205-litre drums are heavy and awkward to move.

A Solution

Placing drums on a drum dolly makes moving them very easy. Installing a hand pump and hose means that drums don't have to be tilted.

Benefit

Using a drum dolly reduces the risk of back and shoulder injuries, since drums no longer have to be rolled or tilted.



USING BULK STORAGE TO ELIMINATE DRUMS

The Problem

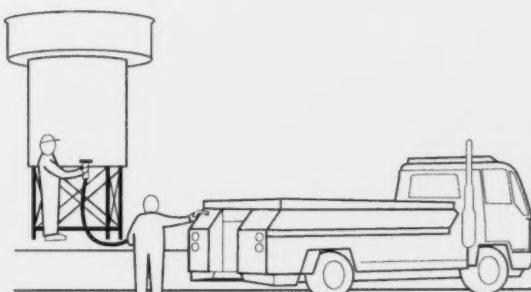
Drums filled with a product have to be loaded onto a truck. At the work site, the contents of the drums have to be decanted into buckets, carried to specific locations and then emptied.

A Solution

Store the product in a bulk storage tank instead of in drums, and load the product into a holding tank on a truck.

Benefits

Using bulk storage reduces the number of workers required and eliminates the repetitive manual handling of heavy drums.



AWARDS RECOGNIZE WORKPLACE SAFETY INNOVATIONS

by Kerry Tremblay

Taking a new workplace safety idea to reality is like performance driving. It takes a keen eye to see the problem clearly, a lot of know-how to get around the obstacles and tenacity to get to the finish line.

According to the three winners of Work Safe Alberta's 2005 Annual Awards for Innovation in Workplace Health and Safety (see sidebar), the journey can be fun, satisfying and frustrating in turn. The award is given out by the Occupational Health and Safety Council, a volunteer council that advises the Minister of Human Resources and Employment on OH&S issues and hears appeals on OH&S orders.

"Innovation," says Council Chair Patty Whiting, "is very important, because new ideas that people have come up with will change how we look at safety problems in the workplace. It's really very exciting that people are looking at engineering the problems out, instead of depending on personal protective equipment to keep workers safe."

Cage Industries Ltd., Sexsmith

Peter Thiessen has spent more than 25 years in the construction industry and has built all kinds of scaffolding. His aching shoulders, and the repetitive strain injuries he and his fellow scaffolders constantly battled, convinced him there had to be a better way to do some of the work. He created and designed a hooped cage system to surround scaffold ladders that meets the requirements of Alberta's OH&S legislation.

WINNERS OF 2005 ANNUAL AWARDS FOR INNOVATION IN WORKPLACE HEALTH AND SAFETY

Mining and Petroleum Development

- Ensign Energy Services Inc., Calgary, Award of Distinction
- Rocky Mountain Reset Inc., Rocky Mountain House, Award of Merit

Construction and Construction Trade Services

- Cage Industries Ltd., Sexsmith, Award of Distinction

For more information about the awards, visit www.whs.gov.ab.ca/ohscouncil/innovation.asp. Deadline for applications for the 2006 awards: February 15, 2006.

Up to now, the square or rectangular cages that surround scaffold ladders have been stick-built out of scaffold tubes and clamps. These cages require taking constant plumb lines and careful measurements as they are being constructed, in order to follow a zigzag pattern and include extra platforms at set intervals. Scaffolders need to break the three-point contact rule as they construct the square cages, and the corners of the cages are too far out for a tired worker to lean on. The clamps that attach the pieces are installed on the inside of the cages and are therefore prone to catching hands, clothing or toolbelts. These systems are also heavy, awkward and time-consuming to build.

Thiessen developed an aluminum hoop arrangement that slips over the top ladder pins at 1.6-metre intervals. Each hoop has regularly spaced holes drilled in it so that a worker

"Innovation is very important, because new ideas that people have come up with will change how we look at safety problems in the workplace."

erecting the ladder cage can see where the vertical tubes align with the holes on the next hoop. That hole alignment means that scaffolders don't have to measure the distances or check for plumb. Clamps attach the vertical tube to the outside of the hoop to eliminate the potential for snagging. The hoop system ensures that workers are held in if they lose their balance or need to rest on the way up or down a ladder.

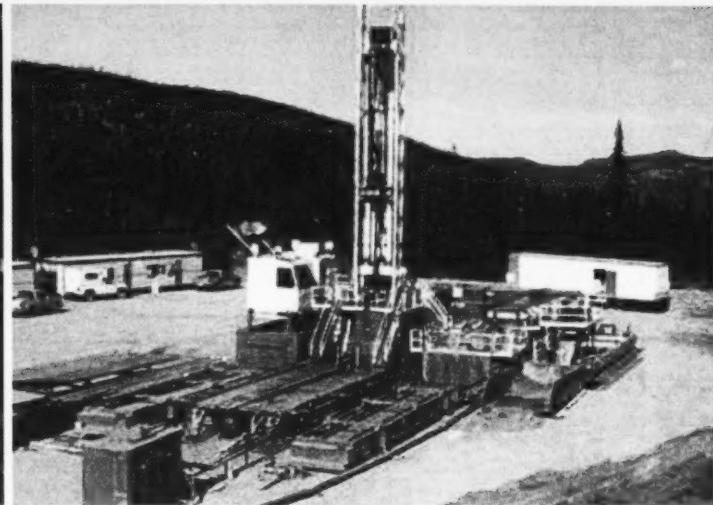
"I'd had the idea for developing this for a long time," says Thiessen. "My system is faster to build, it's lightweight and it's classified the same as a fixed ladder cage. So there is no need for the zigzag ladder pattern and extra platforms."

Rocky Mountain Reset Inc., Rocky Mountain House

John Hildebrand has created Push Off 2000, a device that solves a common oil and gas field problem. According to Hildebrand, 90 per cent or more of the roughly 100,000 producing gas wells and many of the 80,000 oil wells in the province have a piece of pressurized equipment called a fuel gas scrubber on the production site. "This is the core of the whole process. It supplies the heat, pneumatic control and power to run any oil or gas facility. If there is no fuel gas, there is no production," he explains.



Rocky Mountain Reset's Push Off 2000



Automated Drilling Rig / Photo courtesy of Ensign Energy.

Inside the scrubber is a float designed to block liquid from coming up a pipe into the workings of the machinery. However, that float can and often does stick to the entrance of the pipe once the liquid level has retreated, and that can shut down the gas or oil production. Field operators who deal with the issue have two choices. They can hit the outside of the pressurized vessel with a hammer to dislodge the float or they can disassemble the vessel, which often means the operators are showered with fuel or condensates from inside. Neither option is safe, and the second is time-consuming as well.

Hildebrand put his 20-plus years of experience as a field operator and consultant to the test by coming up with a simple solution. He designed a tool that threads onto the pipe above the scrubber and stays there permanently. It has a long rod that goes down into the scrubber, and a lever mechanism off to the outside of the pipe. Using the lever, the operator can manually push the float back into position. The unit can either be retrofitted onto the scrubber, or put into the design plans for new wells.

Once Hildebrand had the idea, he

had a chat with a pal who could make a prototype, and the rest is history. The patented equipment is currently being manufactured in his small machine shop, and about 30 companies are using the product.

Ensign Energy Services Inc., Calgary

Rob Wilman, vice-president of health, safety and environment, says Ensign Energy's clients wanted a faster drilling rig that didn't have to stop the drilling process once it had begun. They also wanted a rig that could work at all angles for directional drilling and they wanted a smaller footprint, so rig set-up wouldn't need massive site preparation or days to move and set up.

Using more automation and computers, Ensign Energy Services developed a new type of automated drilling rig. And because it has virtually eliminated many of the dangerous jobs on rigs, it is much safer. "This was a bonus that wasn't anticipated," Wilman says.

There have been no lost time injuries for workers on the automated drilling rigs, which were put into use in November 2001. Traditionally, says Wilman, the majority of injuries on

drilling rigs occur on the rig floor or in the pipe-handling areas where there is loose and swinging equipment such as drill pipes and chains and giant tongs. Both workers and machinery are often sprayed with drilling mud and hindered by ice or snow. When fatigue is factored into the mix, the number of work-related injuries can be high on traditional rigs. With the automated drilling rig, much of the work occurs from a control room that is on-site but well away from the rig floor. Incidents have been much more minor, like spraining an ankle in a gopher hole during set-up.

In addition, fewer people are needed to set up and operate the equipment, and less training is needed to do the work well. Workers help build each new automated drilling rig they will be working on (in Nisku, Alberta) before being sent to the field, so they understand that particular rig and exactly how it works.

Currently, 17 automated drilling rigs are being used in Canada.

Kerry Tremblay is a Calgary freelance writer specializing in safety and training.



SAFETY, LITERACY AND THE INTERNET

by Bob Christie

Check out the National Literacy Secretariat website at www.hrsdc.gc.ca/en/gateways/nav/top_nav/program/nls.shtml. There you will learn that 40 per cent of Canadians read and write at a level below that required to work in the modern economy. Forty per cent. Wow!

But it gets worse. Well over half of older workers fall into this category. These folks cannot read the most basic warning sign. While the Secretariat has not actually done a study to compare literacy rates with incident rates, they have demonstrated that if your literacy rate is low and you become unemployed, you are 250 per cent more likely to remain so for more than six months.

How do these workers function in the workplace? They have learned to cope. Need to read a manual? Leave your glasses at home and then take the manual home and have your wife read it to you ... Or just try to figure it out by looking at the pictures. Being promoted to a position where you have to read and write reports? Sock your boss on the chin and get fired. (Never think of those with literacy issues as being less bright than others.)

So, what does all of this have to do with the Internet?

First, the amount of research available on the Internet about the impact of literacy in the workplace is growing by leaps and bounds.

Second, you need to find alternative methods of getting information to workers with literacy issues. Learning technology, including the Internet, increasingly combines text with voice, images, animation and motion video, providing alternative channels for getting critical information across. For example, the Alberta Forest Products Association and a host of other partners

(including Alberta Human Resources and Employment, Alberta Learning, Northern Lakes College, Norquest College, the Alberta Workplace Essential Skills Committee, the Federal Office of Learning Technology and my company, Christie Communications) have developed a package called Leadership in Health and Safety (www.albertaforestproducts.ca/document_library/lhs_cd.ppt). The package, which covers health and safety leadership training as well as literacy issues, is now being used almost universally within the Alberta forest industry.

Other good resources on the topic of literacy and safety:

- http://ist-socrates.berkeley.edu/~lohp/Publications/Literacy_And_Safety_Training/literacy_and_safety_training.html
- www.centreforliteracy.qc.ca/publications/lacmf/vol17no2/1-2.htm
- www.homesafetycouncil.org/expert_network/en_literacy_w012.aspx
- www-apps.niehs.nih.gov/outreach-education/Documents/an0301-0350/An000308.pdf

The bottom line: if a worker cannot read a safety sign, an operator's manual or the terms of a safe work permit or a work order, he or she will not be safe in the average workplace. It's time to take some action ... and the Internet can help.

Bob Christie is a partner at Christie Communications Ltd., a multimedia development company in Edmonton. Bob supplies most of the web link resources for the articles in this magazine.

WORK-RELATED INCIDENT FATALITIES

May - August 2005

The following information about deaths caused by work-related incidents or exposure is published to remind readers of the importance of workplace health and safety. In many cases the investigation into these fatalities is continuing. Final investigation reports are filed at the Alberta Government Library – Labour Building site and can be reviewed there or at www.whs.gov.ab.ca/fatalities.

To protect personal privacy, the fatality descriptions do not include the names of the deceased.

Most work-related incident fatalities that fall under provincial jurisdiction are investigated by Alberta Human Resources and Employment. In general, highway traffic, farm, disease or heart attack fatalities are not investigated.

The following fatalities have been or are being investigated.

A 23-year-old floorhand on a service rig was killed instantly while working on an oil well. The worker was struck by metal fragments when an in-line explosion occurred.

A 26-year-old pipeline labourer was killed when struck by a length of pipe. The incident occurred when a hook on a cable attached to a moving sideboom snagged an unsecured pipe that was loaded on a trailer.

A 37-year-old log deck chaser was crushed by a log catcher for a cut-off saw conveyor while attempting to remove a jammed log.

A 15-year-old helper/labourer was standing on a work platform placed on the forks of a forklift in order to install metal siding on a building under construction. The building structure collapsed and crushed the worker.

A 36-year-old volunteer worker involved in renovating a private school was electrocuted by live bare wires on an electrical switch that had been pulled out to install new drywall.

A 37-year-old sheet metal worker at a building construction site was killed by a fall of approximately 8 metres from the platform of an electric scissor lift. The worker lost control of the lift, which was on uneven ground, and fell while attempting to move onto the roof of the building.

A 67-year-old sprinkler system installer died from a fall off a ladder placed on a pallet on a material hoist. The material hoist moved while workers were still on the ladder.

A 44-year-old heavy equipment operator was killed after losing control of a grader he was operating. The grader rolled backwards over an embankment.

A 55-year-old driver of a refuse truck died when his vehicle collided with a train at a rail crossing.

A 14-year-old part-time yard worker died while sandblasting the box of a wartime army truck. The truck box, which had been stood on end, fell and trapped the worker underneath.

A 30-year-old labourer in a service repair shop died as a result of a lack of oxygen after entering a nitrogen transport tanker to inspect it.

A 31-year-old shop supervisor was crushed when the scissor arms of a scissor lift table collapsed. The incident occurred while workers were installing new pins on the hydraulic cylinders.

A 33-year-old pool serviceman drowned when he entered a hot tub.

A 57-year-old painter and general helper at a campground drowned when the backhoe he was riding in as a passenger entered swift-moving water and capsized. The worker's body was found downstream a few days later.

Return Undeliverable Canadian Addresses to:

CIRCULATION DEPARTMENT

Alberta Human Resources and Employment
Workplace Health & Safety and
Employment Standards Compliance
10th Floor, South Tower, Capital Health Centre
10030 - 107 Street, Edmonton AB T5J 3E4
E-mail whs@gov.ab.ca

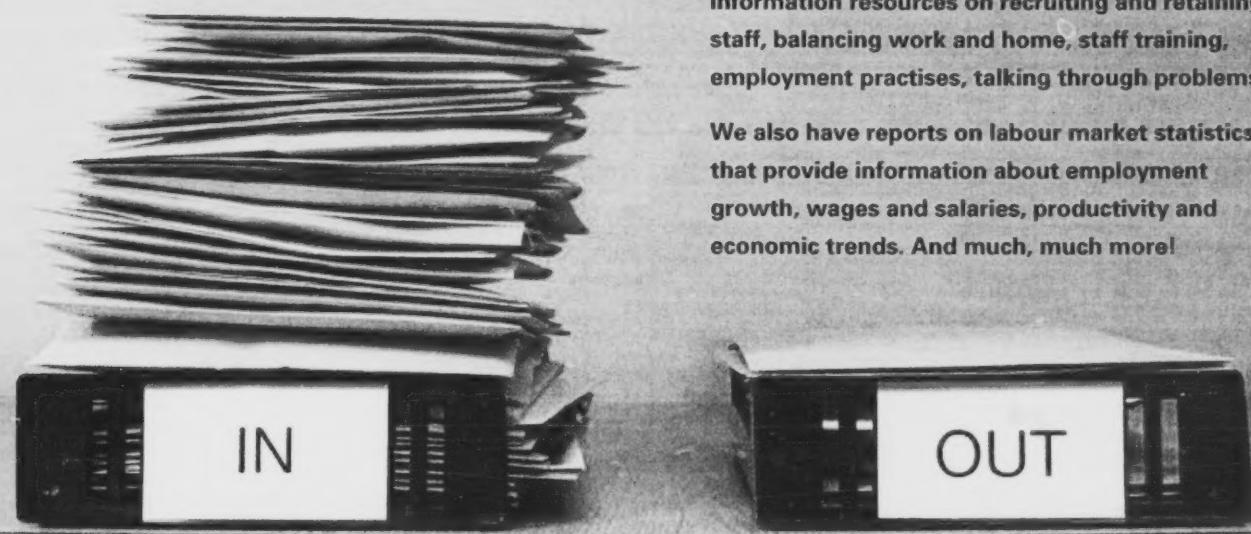
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Information Resources for Employers May 2005

A Guide to Rights and Responsibilities in Alberta Workplaces (Book, 40 pages)
Many of the rules workers and employers must follow in the workplace are written in legislation. This book provides an overview of legislation from a variety of Alberta government departments and agencies and offers contact information for more assistance. Helpful for people new to the workplace – particularly youth and immigrants, but also to small business owners or managers who might be new to their management responsibilities. Topics include:

"Let's Talk" (Book, 32 pages)
Let's Talk: A guide to resolving workplace conflicts
A useful tool for both employers and employees who want to learn how to acquire the knowledge and skills necessary to resolve issues. The language is plain and the process is straightforward.

The book offers:
* an outline of the

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